

ABSTRACT

The present invention provides, in one aspect, an apparatus for electrophoretic separation of analytes. In one aspect, the apparatus comprises a disc-shaped substrate defining (1) a central reservoir region, (2) a plurality of electrophoretic channels in fluid communication with, and emanating substantially radially from, the central reservoir region, the channels being coplanar with each other, and each channel having (i) a proximal end which is linked to the reservoir region, and (ii) a distal end, and preferably (3) for each channel, at least one chamber, and preferably three chambers, linked by a passageway in fluid communication with the distal end of that channel. Preferably, each passageway leads from each chamber in a direction that is initially away from the central reservoir region, whereby centrifugation of the substrate about a central axis that is perpendicular to the channels is effective to disperse liquid from the central reservoir region into the channels and chambers, such that any air bubbles in the chambers, channels, and passageways are forced towards the axis of rotation, when such liquid is present in the central reservoir region.